CREST Status Report –October 23, 2000

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Activity: Consolidated Reporting of EarthquakeS and Tsunamis (CREST)

1) **Warning Centers:** During the past 6 months there was no activity conducted at the Warnings Centers by CREST project personnel, except for support of telemetry links.

2) **Seismic Network instrumentation**: Installations of seismic instrumentation continue as weather and equipment inventories permit. The inventory of seismic stations shows those installed and scheduled for installation.

AEIC: Five sites are operational, and two additional sites will be online soon (see Alaska map). Permits and field surveys are complete from 3 sites, but installation is not possible during the winter months. Permit process has begun at 8 other sites. In addition, continuous data from two non-CREST sites (McKinley) are being telemetered to ATWC/WC. Malfunctioning sensors continue to hamper progress because they require that they be returned to the manufacturer for repair.

ATWC: Two sites are operational (see Alaska map). Data logger for Sand Point is scheduled for delivery in November. It will be installed as weather permits.

NCSN: Three sites are operational (see Pacific Northwest map). Satellite VSAT's for 7 sites arrived mid-October and data loggers are expected to arrive in November. On receipt of equipment, sites will be installed as weather permits. We anticipate installing 2-3

additional sites over the winter and 3 VSAT's.

HVO: Hawaii is fully operational (see Hawaii map).

PNSN: Six sites are operational (see Pacific Northwest map). One site will be installed this fall. Noise tests were made at four sites on the Oregon coast where BPA microwave telemetry exists. Installation will commence following approval by BPA. Permitting is underway at 3 sites that utilize free telemetry by the Washington State Patrol microwave system, Seattle Water Department, and Washington Forest Department, and installation will commence upon approval. Equipment exists for installation at four additional sites, but no specific locations have been identified.

UO: UofO installation is fully operational (see Pacific Northwest map)

UCB: Proposed telemetry configuration from Cahto Peak to Laytonville, CA proved to be untenable and plan was abandoned. This cooperative site will tentatively be installed at Alder Springs in the spring pending approval by California Department of Water Resources and transmitted to Berkeley (and USGS) via a combined spread spectrum/Frame Relay circuit.

PGC: As of April 1, 2000, the Pacific Geoscience Center is funded to participate in CREST. The PGC network is currently sending data directly to the ATWC via the Internet as well as via AEIC.

3) **Communications**: All links are up and functioning. We are considering upgrading the capacity of the Golden-to-ATWC/WC from 56kbps to 128kbps. Investigations are underway to improve connectivity, capacity, and cost savings through utilization of VBNS networking with priority service. We are investigating the cost of providing a dedicated circuit from the University of Washington to the Pacific Geoscience Center network.

4) **Algorithms**: ShakeMap implementation is complete in NC and is

in production. Efforts were devoted to integration of non-NCSN data sources into ShakeMap utilizing an Oracle DBMS as a staging platform for peak ground motion parametric information.

- ML magnitude computation software is being released to entire community pending code documentation.
- Moment tensor code from UCB has still not been integrated into Earthworm. It’s moving to the front burner soon.